

TWO INTERESTING DACETINE ANTS FROM BRAZIL (Hym., Formicidae)¹

T. BORGMEIER, O.F.M.

Jacarepaguá, D.F., Rio de Janeiro

(With 9 text-figures)

The ants described in the following paper were taken with a Berlese funnel from jungle mold by Mr. F. PLAUMANN at Nova Teutonia, State of Santa Catarina, Brazil, together with other interesting forms (*Sphinctomyrmex*, etc.). I wish to thank the collector for the privilege of studying this interesting material.

Gymnomyrmex gen. n.

Related to *Smithistruma* Brown, from which it differs by the smooth shining integument of head and thorax, the peculiarly shaped petiole, and the complete absence of erect hairs on head and thorax. The thin lamellate appendages on the sides and ventral surface of petiole and postpetiole seem to be similar to those present in *Tingimyrme* Mann. — Genotype: *Gymnomyrmex splendens* sp. n.

Gymnomyrmex splendens sp. n.

(Figs. 1-6)

Worker — Head length, including mandibles, 0,74 mm; excluding mandibles 0,62 mm; greatest width 0,39 mm; head depth 0,26 mm. Mandible, mounted in balsam, 0,22 mm. Clypeus length 0,22 mm, width 0,19 mm. Antennae, mounted in balsam: scape 0,29 mm, funiculus 0,50 mm. Thorax from anterior border of collar to epinotal angle 0,72 mm; greatest width 0,24 mm. Petiole 0,34 mm; postpetiole plus gaster 0,72 mm. Posterior metatarsus 0,32 mm. Total body length, in curved position as figured 2,1 mm; by addition of partial measurements 2,52 mm.

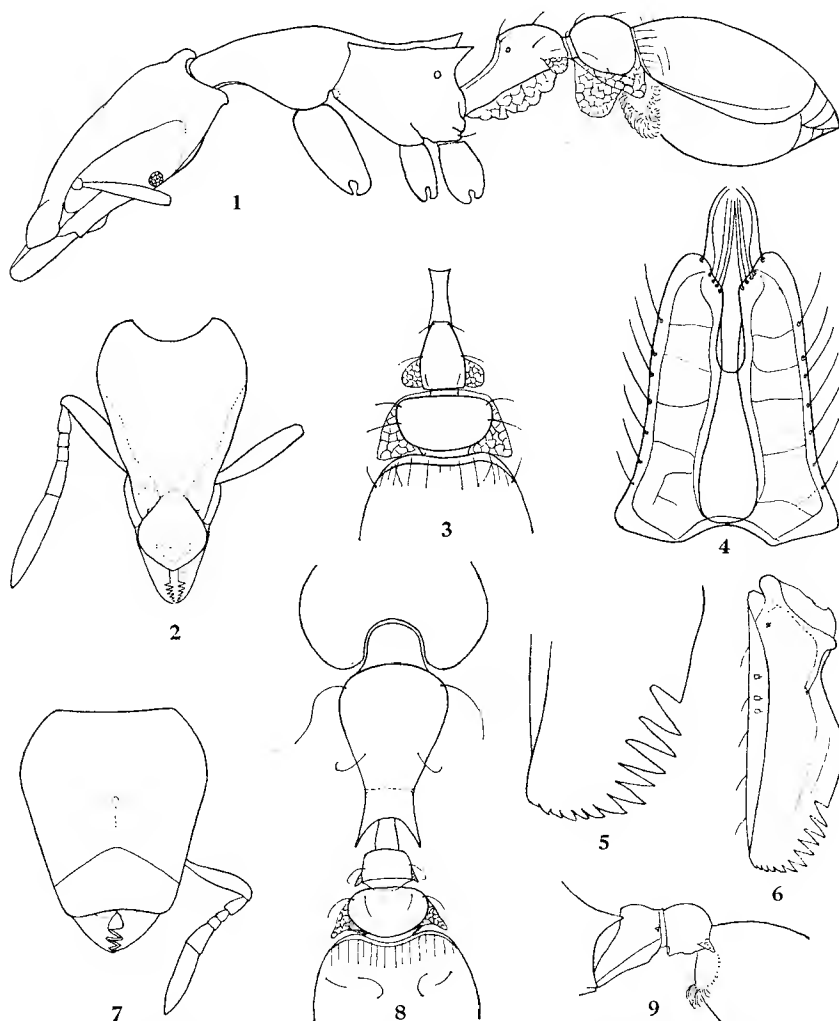
¹ Received for publication April 9 1954.

Head, inclusive of mandibles, nearly two times as long as broad, greatest width at posterior fifth; posterior border deeply excised, excision as broad as clypeus; occipital lobes broadly rounded; dorso-lateral borders of antennal scrobes nearly straight, converging anteriorly; surface of head rather flat, convex at greatest width; occipital lobes with a transverse sulcoid impression on the level of posterior emargination. Eyes small, consisting of a dozen facets, situated a little before the midlength of the head astride the ventral borders of the antennal scrobe. Subocular lamina, seen from above, slightly convex; without tooth anteroventrally. Scape thin at base, then moderately enlarged and apically a little attenuated; funiculus slender, apical joint a little shorter than remainder, first joint longer than the two following together but shorter than fourth; second and third subequal. Clypeus moderately convex, slightly longer than broad, lateral borders convex, anterior border subangulate in the middle, posterior border indistinct; the disc shows a small raised "tumulus" near the center of the apical border. Mandibles on inner border with a semitransparent basal lamina, immediately followed by an apical series of 11 denticuli; a great part of the basal lamina is visible from above when the mandibles are closed; the basal denticuli 1-5 of the apical series are fairly long, the remainder decreasing in length becoming obsolete near rounded apex. Labrum chitinised, with two lobes, dorsal surface laterally with faint reticulation, lateral margins with seven hairs, apex of each lobe obliquely truncate bearing five hairs, the two outer ones are longer and curved inward. Labial palps one third longer than maxillary palps, with two unequal hairs at tip; maxillary palps with one apical hair.

Thorax slender. Pronotum one fourth longer than broad, finely marginate anteriorly, laterally rounded. Promesonotal suture obsolescent. Promesonotum in profile slightly convex. Mesonotum longer than broad, less than one half as broad as pronotum, lateral borders marginate, straight, slightly converging posteriorly. Epinotal suture distinct. Basal face of epinotum a little longer than broad, lateral borders marginate, straight, diverging posteriorly, posterior border concave; declivous face vertical. Epinotal spines long and acute, lamellate, semitransparent, with horizontal dorsal borders. Posterolateral borders of epinotum with a lamellate semitransparent margin. Metapleural gland strongly raised.

Peduncle rather long, dorsal face submarginate. Posterodorsal disc slightly convex in profile; seen from above longer than broad (9:6), anterior border and anterior half of lateral borders marginate, posteriorly truncate; sides slightly convex, converging anteriorly. Lateral margin posteriorly with a small horizontal reticulate leallike lamella of chitinous transparent material. Ventral border of peduncle with a band of the same subspongiform material. Post-petiole slightly convex above, broader than long, nearly semicircular, with straight anterior border, surrounded by a thin horizontal lamella which is narrow anteriorly and broader laterally, ending posteriorly in an acute angle.

Ventrally the postpetiole shows on each side a larger lamella directed downwards.



Gymnomyrmex splendens gen. n., sp. n., worker. — Fig. 1: Body in profile; fig. 2: head, dorsal view; fig. 3: petiole and postpetiole, dorsal view; fig. 4: labrum, dorsal view; fig. 5: tip of mandible, greatly enlarged; fig. 6: left mandible, ventral view. *Glamyromyrmex appretiatus* sp. n. worker. — Fig. 7: Head, dorsal view; fig. 8: body, dorsal view; fig. 9: petiole, postpetiole and base of gaster, in profile. Borgmeier del.

Gaster broad-oval, somewhat depressed. First tergite anteriorly slightly concave, with a thin semitransparent margin and several costulae of unequal length. First sternite basally with a compact ring of spongiform and hairy material. Legs slender. Anterior tibia with a pectinate apical spur. Middle and hind metatarsus subequal in length to the respective tibia.

Body in general smooth and highly shining; dorsolateral borders of head, occipital lobes and antennal scrobes reticulate-punctate; the following parts are

more or less punctate: neck, mesonotum, basal and declivous face and posterior lamellae of epinotum, epinotal spines, metapleural glands, petiole and peduncle, and all femora; postpetiole and gaster highly shining.

Erect pilosity absent from head and thorax; only one short hair at the infero-lateral angle of epinotum. Petiole and postpetiole each with three pairs of short hairs as figured. First gastric tergite with one pair of hairs on each side anteriorly; second and third tergites with a few scattered erect hairs. Pubescence of head, thorax and gaster very scanty and short, adpressed; more abundant on antennae and mandibles. Legs with reclinate rather stout hairs.

Color yellowish red, dorsolateral borders of head darkened; antennae and legs yellowish.

Holotype worker and one paratype taken with a Berlese funnel from jungle mold at Nova Teutonia, State of Santa Catarina, Brazil, F. Plaumann coll. Oct. 1953. One antenna, the mandibles, labrum and mouthparts of the paratype were mounted in balsam. Holotype and balsam slides in the author's collection. Paratype deposited in the Museum of Comparative Zoology, Cambridge, Mass.

Glamyromyrmex Wheeler, 1915

The three known species of this interesting genus (*beebei* Wheel., Belém, Pará; *wheeleri* M. R. Smith, Panama, Canal Zone; *convexiceps* Santschi, Habana, Cuba) were briefly revised by BROWN (1950), who added a fourth (*lilloanus* Brown, Tucumán, Argentina) assigning it to a new subgenus (*Chelystruma*). The new species described below is related to *wheeleri* M. R. Smith.

Glamyromyrmex (s. str.) **appretiatus** sp. n.

(Figs. 7-9)

Worker — Head length, including mandibles 0,62 mm; excluding mandibles 0,54 mm; greatest width 0,48 mm. Clypeus length 0,20 mm; width 0,32 mm. Scape length (in situ) 0,22 mm; funiculus 0,40 mm. Thorax length, from pronotal carina to epinotal angle 0,52 mm; greatest width 0,28 mm. Petiole 0,26 mm; postpetiole plus gaster 0,68 mm. Hind tibia 0,26 mm; hind metatarsus 0,18 mm. Total body length, curved 1,60 mm; fully extended 2,00 mm.

Head without mandibles longer than broad, greatest width at posterior third; posterior dorsal surface more convex in both directions than remainder; posterior border very slightly concave; lateral borders straight at anterior two thirds, diverging behind, then rounded off and converging to the occipital border. Frontal area obsolescent; a very faint median line, almost impercepti-

ble; center of front with a small circular depression. Clypeus a little longer than half of its width, anterior border very slightly and broadly emarginate, posterior border sulcoid, subangular. Eyes small, consisting of 8 facets, situated on the ventral border of the antennal scrobes. Subocular lamina with a prominent tooth anteroventrally. Scape thin at base, slightly sigmoid, ventral face slightly excavated on distal half. Funiculus with a two-jointed club; apical joint subequal to remainder; first as long as the two following together; second and third small, subequal; fourth a little longer and thicker than first. Mandibles prominent; basal lamella with a transverse sulcus near the anterior clypeal border, when the mandibles are closed; apical border slightly convex and nearly vertical in profile, with five strong teeth which cross with the teeth of the opposite side.

Thorax more or less marginate at sides, anterior pronotal border carinate. Promesonotum slightly convex in profile. Promesonotal suture obsolescent; epinotal suture indistinct. Pronotum broadest anteriorly, a little broader than half of head width, humeri broadly rounded, lateral borders of promesonotum converging behind to the epinotal constriction. Basal face of epinotum broader than long, their lateral borders slightly diverging to the prominent epinotal spines, dorsal face sloping downwards posteriorly; posterior border, seen from above, deeply excavated. Epinotal spines long, lamellate, acute. Metasternum slightly angulate inferiorly.

Peduncle rather long; posterodorsal disc broader than long, anterior angles subangulate, posteriorly subtruncate; posterior angles with a small lamellate spiniform appendage directed laterad. Postpetiole broadly oval, with convex dorsal surface; lateral appendages larger, horizontal, semitransparent, ending in an acute angle posterolaterally. Ventral surface of petiole and postpetiole without appendages.

Gaster broadly oval, somewhat depressed. First sternite basally with an inconspicuous ring of spongiform and hairy material. First tergite bordered anteriorly by a thin lamella slightly excavated in the middle. Basal costulae short, fine, of varying length.

Body smooth and shining. Head very finely reticulate punctate. Pronotum finely striate, neck densely punctate. Mesonotum, epinotum and petiolar node rugose-punctate. Postpetiole and gaster highly shining.

Erect hairs absent from head. Pronotum with two pairs of curled hairs at humeral angle and near posterior border, the anterior pair extremely long. Some hairs on petiole and postpetiole, and a very few on gaster; first gastric tergite with two pairs laterally at basal third and apical fourth. Pubescence of head sparse and very short, closely adpressed. Antennae and mandibles densely clothed with short hairs. Legs with rather stout subreclinate hairs.

Color blackish brown, dorsolateral margins of antennal scrobes translucent, yellowish. Antennae and mandibles light brown, legs yellowish. Appendages of petiole and postpetiole yellowish. Basal ring of gaster whitish.

Holotype worker, taken with a Berlese funnel from jungle mold at Nova Teutonia, State of Santa Catarina, Brazil, F. PLAUMANN coll. Oct. 1953. Type in author's collection.

Discussion — The new species is nearly related to *wheeleri* M. R. Smith (1944), from which it differs by the longer head, shorter petiolar node, and absence of subspongiform appendages on ventral face of petiole and postpetiolc.

RESUMO

No presente trabalho o autor descreve duas fornigas da tribo Dacetini provenientes de Nova Teutônia, Santa Catarina: *Gymnomyrmex splendens* gen. n., sp. n. e *Glamyromyrmex appretiatus* sp. n.

REFERENCES

- BROWN, W. L., Jr., 1948. A preliminary generic revision of the higher Dacetini. *Trans. Amer. Ent. Soc.*, 74:101-129, 2 figs.
- BROWN, W. L., Jr., 1950, Revision of the ant tribe Dacetini. II. *Glamyromyrmex* Wheeler and closely related small genera. *Trans. Amer. Ent. Soc.*, 76:27-36, 2 figs.
- BROWN, W. L., Jr., 1953, Revisionary studies in the ant tribe Dacetini. *Amer. Midl. Nat.*, 50:1-137, 10 figs., 3 pls.
- MANN, W. M., 1926, Some new Neotropical ants. *Psyche*, 33:97-107, 1 fig.
- SANTSCHI, F., 1931, Fourmis de Cuba et de Panama. *Rev. Ent.*, 1:265-282, 17 figs.
- SMITH, M. R., 1944, A second species of *Glamyromyrmex* Wheeler. *Proc. Ent. Soc. Wash.* 46:254-256, 2 figs.
- WHEELER, W. M., 1915, Two new genera of Myrmicine ants from Brazil. *Bull. Mus. Comp. Zool.*, 59:483-491, 2 figs.